

# Clean Water Act - NPDES Permitting/TMDL

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## Pop Quiz: Why are you here?

- a. A dedicated professional
- b. Concern for the environment
- c. They made me do it
- d. Free trip to Kansas City
- e. all, some or none of the above



# *Objectives:*

- *How NPDES Permitting works*
- *Types of permits*
- *How to apply for/obtain permit*
- *TMDL update*



# *The CWA Discharge Prohibition*

no discharge of pollutant by any person.....except in compliance with permit requirements, effluent limits, and other conditions



# *Who Needs a Permit?*

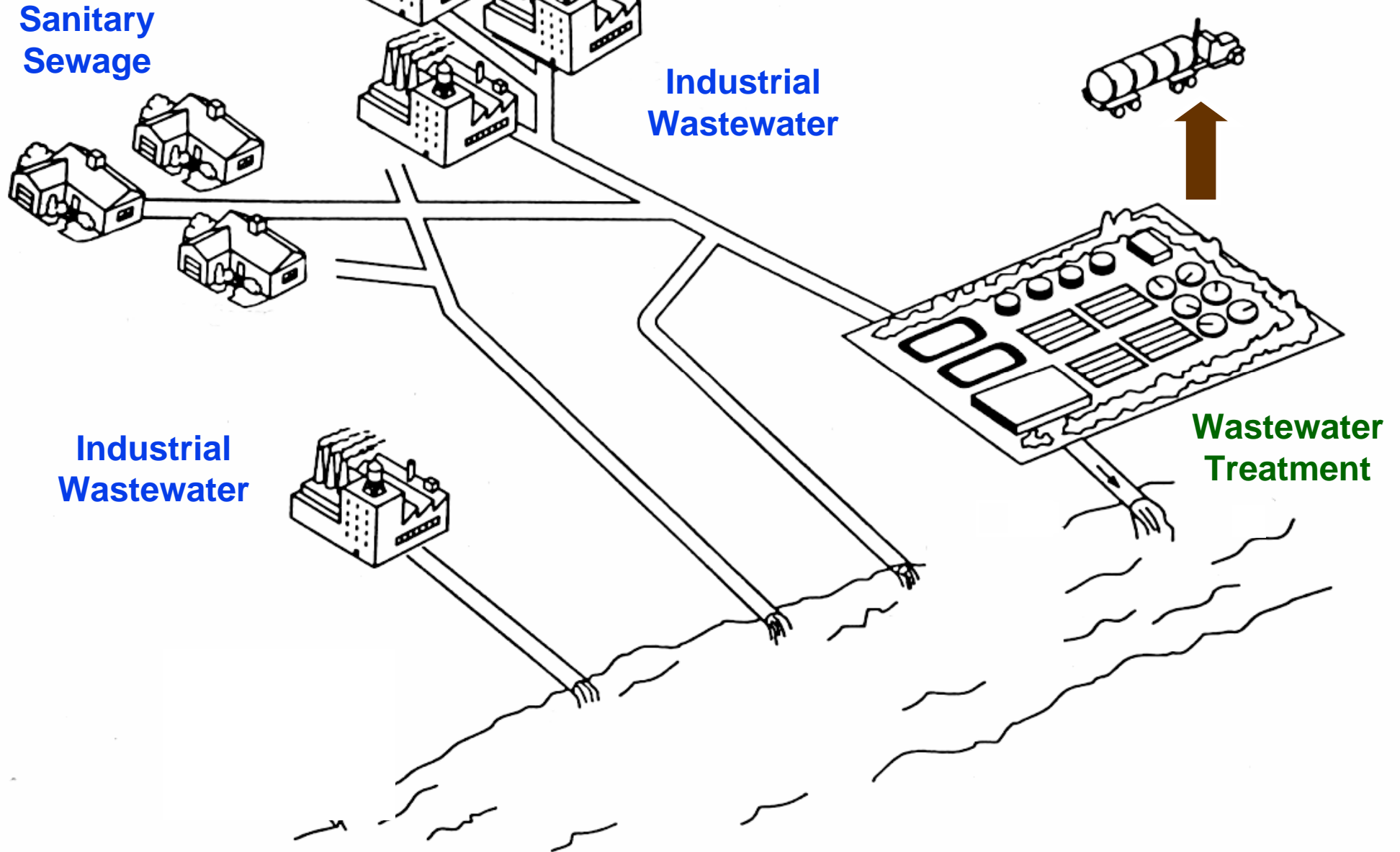


- Anyone who discharges pollutants to U.S. waters





# (Waste) Water World





# (Waste) Water World, Army

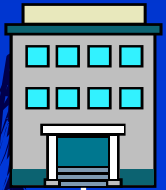
DENTAC



Outfall



Admin




Motorpool



Labs

MEDCEN



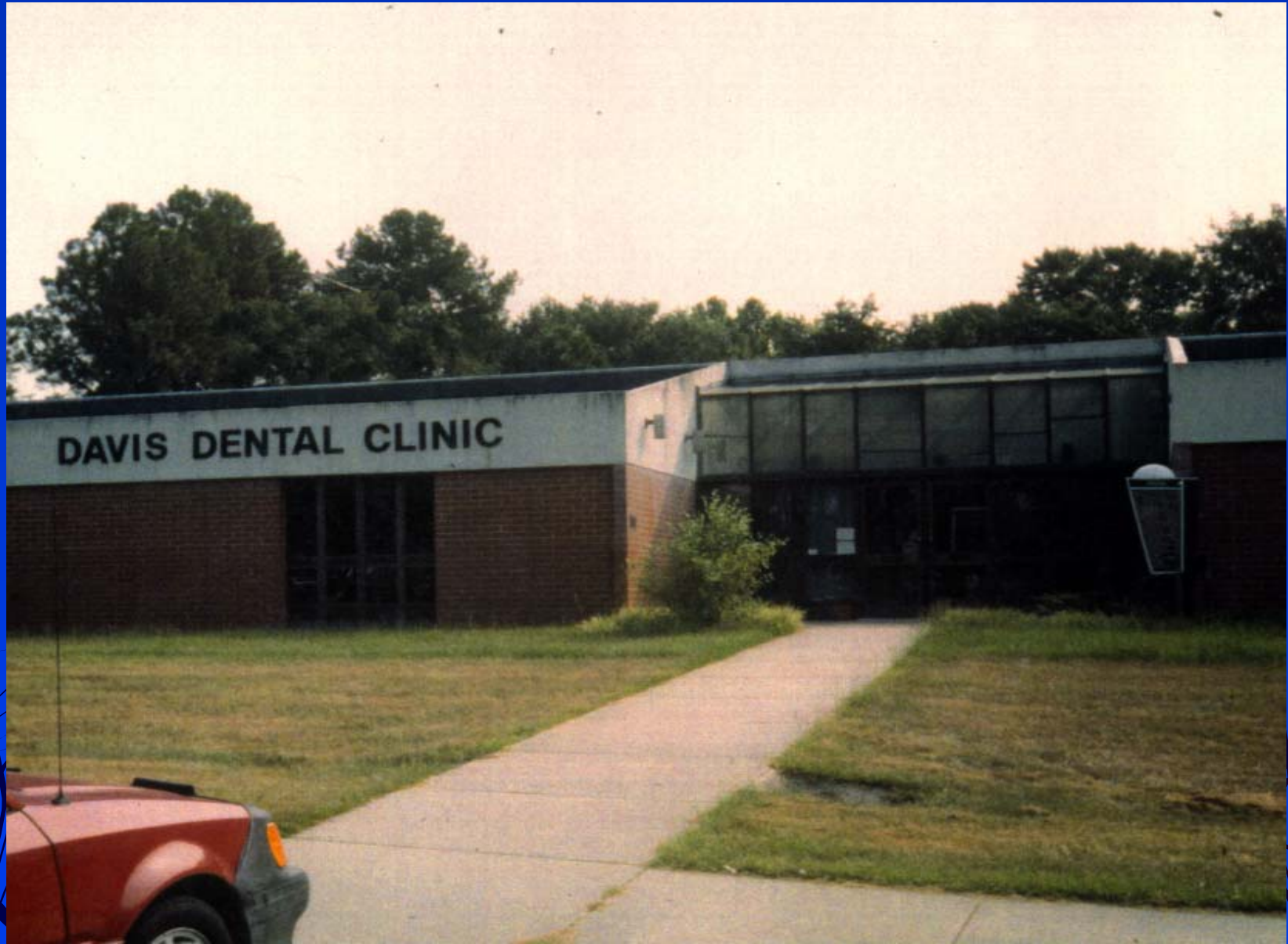
-  = managed through PT (voluntary)
-  = managed through NPDES



# *Types of Dischargers*



# *Industrial wastewater – Fixed Installations*





# *Hospital*



# *Wastewater Plant*





# *Typical Washrack*

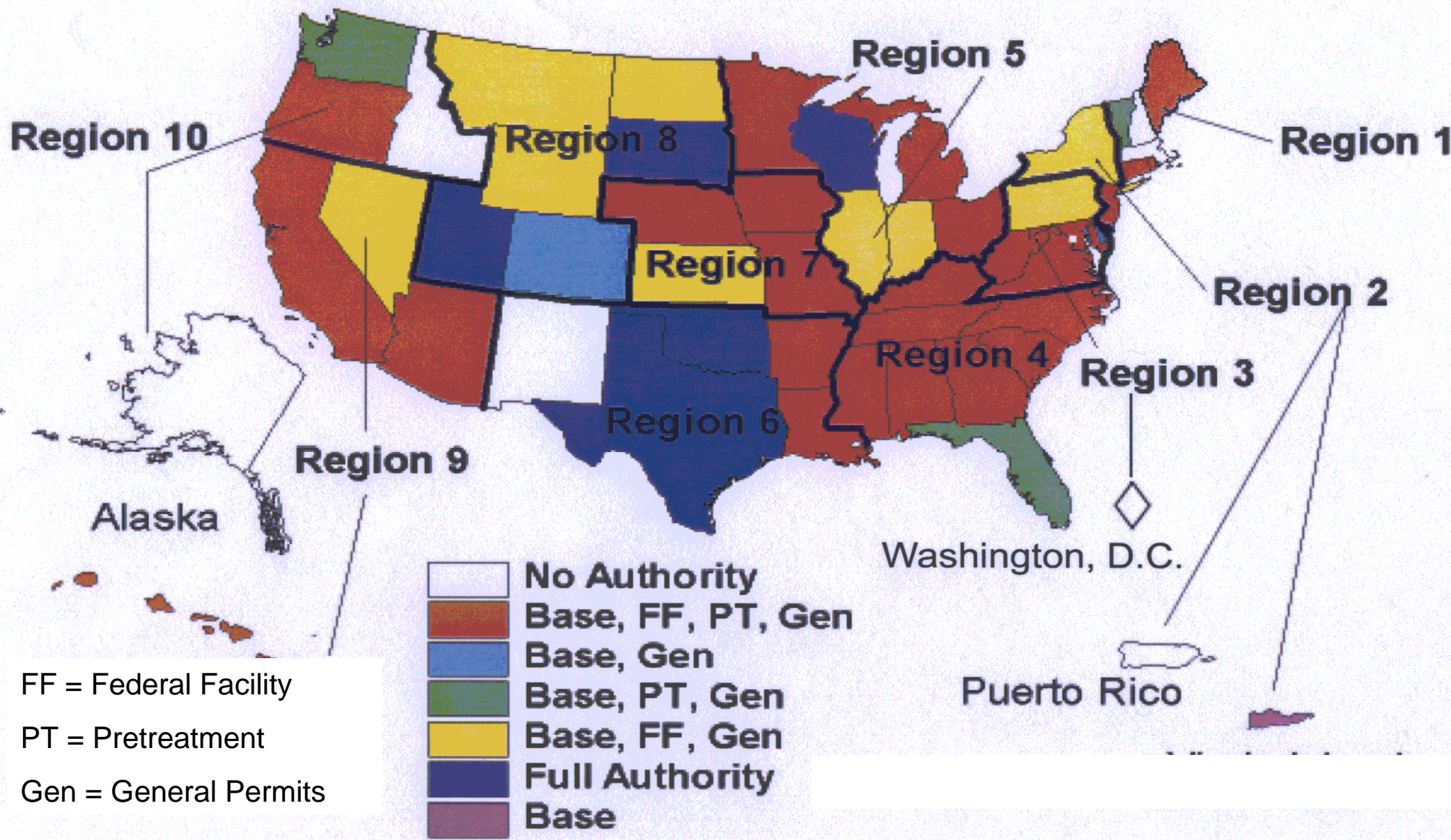


# *Who Issues NPDES Permits?*

- Federal EPA (NPDES)
- States
  - must have EPA approved program
- <http://cfpub2.epa.gov/npdes/statestats.cfm>



# State NPDES Program Authority



# *Permit Is a Contract*



# *Types of Permits*

- Individual
- General





# *Individual Permits*

- Tailored to an individual facility
- Developed based on info contained in the permit application



# *Typical Army Individual Permits*

- Sewage treatment plants
- Industrial wastewater
- Cooling water
- Oil/water separators



# *Issuance Process For Individual Permits*



File application 180 days before expiration  
or begin discharge



Draft permit issued (includes fact sheet)



30 day public comment period



Permit effective 30 days after issuance



# *What Should You Do When You Receive Your Draft Permit?*



- Have permit reviewed
- Compare draft with existing permit
- Compare the discharge limitations with effluent data
- Negotiate with permit writer



# *Typical Permit Conditions*

Parameter	Effluent Limits		Monitoring Frequency
TSS (mg/L)	30	45	Twice Weekly
BOD (mg/L)	30	45	Twice Weekly
NH3-N (mg/L)	8		Twice Weekly



# *Components of a Permit*

- Cover Page
- Effluent Limitations
- Monitoring and Reporting Requirements
- Special Conditions
- Standard Conditions



# *General Permits*



- Authorizes a category of point source discharges within a geographical area
- Covers multiple facilities within a specific category
- Includes common elements
  - ✓ Similar operations
  - ✓ Discharges same types of wastes
  - ✓ Requires the same effluent limitations



# *Common General Permits*

- Storm Water permits
  - ✓ Large Municipal Separate Storm Sewer Systems (MS4s)
  - ✓ Industrial Activities
  - ✓ Small MS4s located in urbanized areas
  - ✓ Small Construction 1-5 acres
  - ✓ Construction >5 acres



# *Storm water regulated through NPDES*

## ■ Tiered approach

- Phase 1: municipal separate storm sewer systems (MS4s), industrial activity, large construction (16 Nov 90)
- Phase 2: small MS4s and small construction (8 Dec 99)

## ■ NPDES permits for regulated dischargers



# *Issuance Process For General Permits*



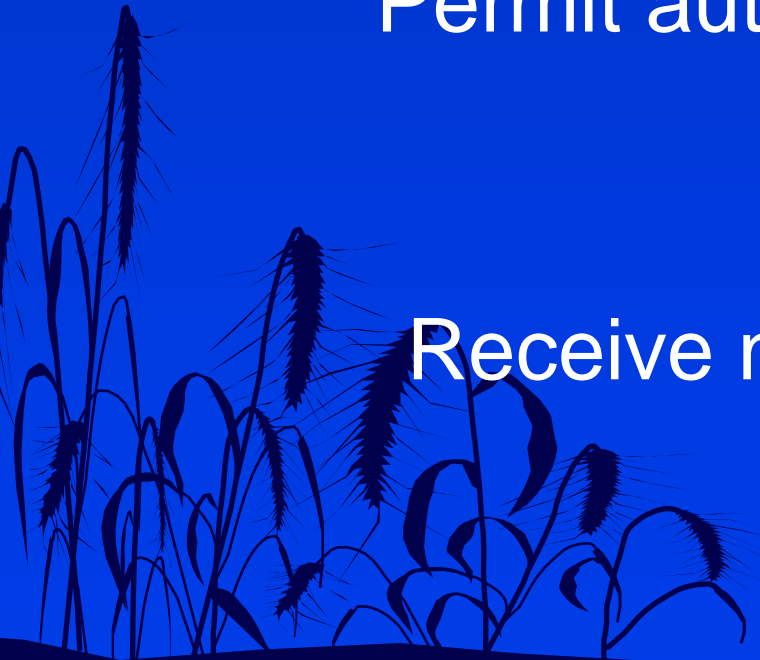
Submit Notice of Intent (NOI) to the permit authority



Permit authority may ask for additional information



Receive notification (one page) of coverage



# *Installation Example #1*

- Pretreatment permit renewal
- Discovered invalid monitoring points
- Negotiated with regulator
- Reduced monitoring points from 16 to 2



## *Installation Example #2*

- Proactively involved in setting WQS
- Fair and reasonable permit limit
- Negotiations with regulator
- Interim standard adopted
- Development of new limit



# *Installation Example #3*

- Consent Order
- Leachate discharges to tributary to drinking water source
- Must be permitted or eliminated
- Characterized the discharges



# *Installation Example #4*

- Received a restrictive draft permit
  - Limits more stringent than Water Code
  - No justification for the more stringent limits
  - Unreasonable monitoring requirements
- Permit challenged - discharge limitations corrected and unreasonable monitoring requirements removed



# *Installation Example #5*

- Phase II general storm water permit
- EPA small MS4 permit
- Applied for individual





# *Trends in Permitting*

- Total Chlorine Residual
- Fecal Coliforms
- Metals
  - Mercury
  - Silver
- Nitrogen
- Biomonitoring
- Loading limits
- Addition of TMDLs



# *What is a TMDL?*



- Maximum amount of pollutant a waterbody can receive and still meet water quality standards



# *Regulatory Authority*

- TMDL regs in 1985, 1992, 2000(withdrawn)
- Under CWA Section 303(d) states must:
  - ✓ Identify impaired water bodies
  - ✓ Develop TMDL for each pollutant
  - ✓ Update their lists every 2 yrs



# *Who is Impacted?*

- Those discharging pollutants identified as causing an impairment to
  - ✓ A waterbody identified on 303(d) list
  - ✓ A tributary of an impaired waterbody
- State review of SWPPPs
  - Sediments
  - Nutrients



# *Ramifications*

- TMDL limits added to NPDES Permits
- Special Conditions/New monitoring
  - BMPs for nonpoint sources
  - Restrictions on new or expanded discharges





# *Getting Involved in TMDL Process*

- Comment on proposed info
- Evaluate technical data/rationale
- Communicate with regulators
- Attend public meetings
- Perform source assessment
- Develop operations/budget strategy



# ***TMDL Progress***

- Upcoming EPA Watershed Rule
- States must implement existing rules
- Only small percentage of the 40,000 TMDLs completed
- Lawsuits



# *Summary*

- How NPDES Permitting works
- Types of permits
- How to apply for/obtain permit
- TMDL update



# The Future?

- Water Shed Management
  - Holistic approach
  - Effluent trading
- TMDL Permitting
  - Water quality VS technology
  - Extremely low discharge limits



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